

# Lesson Description - Installing Python 3.7 on CentOS 7

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Learn how to install Python 3 from source on a CentOS 7 machine.

*Note:* This course uses Python 3.7 and you will *definitely* run into issues if you are using Python < 3.7.

## Download and Install Python 3 from Source

Here are the commands that we'll run to build and install Python 3.7:

```
$ sudo -i
$ yum groupinstall -y "development tools"
$ yum install -y \
  libffi-devel \
  zlib-devel \
  bzip2-devel \
  openssl-devel \
  ncurses-devel \
  sqlite-devel \
  readline-devel \
  tk-devel \
  gdbm-devel \
  db4-devel \
  libpcap-devel \
  xz-devel \
  expat-devel \
  postgresql-devel

$ cd /usr/src
$ wget http://python.org/ftp/python/3.7.2/Python-3.7.2.tar.xz
$ tar xf Python-3.7.2.tar.xz
$ cd Python-3.7.2
$ ./configure --enable-optimizations
$ make altinstall
$ exit
```

*Important:* `make altinstall` causes it to not replace the built in `python` executable.

Using **sudo nano /etc/sudoers** (or your preferred text editor), ensure that `secure_path` in `/etc/sudoers` file includes `/usr/local/bin`. The line should look something like this:

```
Defaults    secure_path = /sbin:/bin:/usr/sbin:/usr/bin:/usr/local/  
bin
```

### Upgrade Pip (might not be necessary)

The version of `pip` that we have might be up-to-date, but it's a good practice to try to update it after the installation. We need to use the `pip3.7` executable because we're working with Python 3, and we use `sudo` so that we can write files under the `/usr/local` directory.

```
$ sudo pip3.7 install --upgrade pip
```